

ABSTRACT OF THE DISCLOSURE

A boiler (10) in which a liquid medium is heated and steam is generated. The boiler (10) includes a housing (12), and a burner (25) for generating hot combustion gases within the housing (12). The boiler also includes a lower drum (30) for receiving the liquid medium, and an upper drum (36) for receiving steam which is generated. A plurality of first tube banks (44) are disposed on both sides of the upper drum (36). The first tube banks (44) including a plurality of first fluid tubes (42) for establishing fluid communications between the lower and upper drums (30, 36), with each first fluid tube defining at least one inwardly extending portion (52). Also provided are a plurality of second tube banks (46) disposed on both sides of the upper drum (36), with the second tube banks (46) being disposed substantially opposite the first tube bank (44). The second tube banks (46) including a plurality of second fluid tubes (43) for establishing fluid communications between the lower and upper drum (30, 36), with each second fluid tube (43) defining at least one inwardly extending portion (68) which is longer than the inwardly extending portions (52) of the first fluid tubes (42), whereby the first and second tube banks define a combustion area (82) within said housing, and cooperatively define with the housing (12) at least a first level of passageways for communicating hot gases across the housing.